# FY2016

# KIPAPA AMMO STORAGE SITE Army Defense Environmental Restoration Program Installation Action Plan

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## Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multiyear cleanup program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, along with the costs and schedules associated with conducting investigations and taking the necessary remedial actions.

In an effort to coordinate planning information between the restoration manager, Installation Management Command, Pacific Region, Kipapa Ammunition Storage Site (KASS), the US Army Environmental Command, the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and tentative budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is therefore, subject to change.

## **Acronyms**

- AEDB-R Army Environmental Database, Restoration
- CERCLA Comprehensive Environmental Response, Compensation and Liability Act
  - CWM Chemical Weapons Munitions
    - **DD** Decision Document
  - FRA Final Remedial Action
    - FS Feasibility Study
    - FY Fiscal Year
  - IAP Installaiton Action Plan
- IMCOM Installation Management Command
  - IRA Interim Removal Action
  - KASS Kipapa Ammunition Storate Site
  - LTM Long-term Management
- MMRP Military Munitions Response Program
  - N/A Not Applicable
  - NFA No Further Action
  - NPL National Priorities List
    - PA Preliminary Assessment
- RA(C) Remedial Action Construction
- RAB Restoration Advisory Board
- RC Response Complete
- RI Remedial Investigation
- RIP Remedy-in-place
- ROD Record of Decision
  - SI Site Inspection
- TAPP Technical Assistance for Public Participation
- TRC Technical Review Committee
- USAG-HI US Army Garrison Hawaii

## **Installation Information**

#### **Installation Locale**

Installation Size (Acreage): 374.42

City: Waipahu County: Honolulu State: Hawaii

#### Other Locale Information

KASS is located within the Kipapa Stream Valley of Central Oahu, approximately 12 miles northwest of the city of Honolulu. It consists of two separate land areas: Lower Kipapa, which is located towards the southern portion of the stream valley, south of Mililani town and a half-mile west of the town of Waipio, and Upper Kipapa, which is located towards the northern portion of the stream valley adjacent to the southeastern side of Mililani town. The two areas, totaling approximately 400 acres, are separated by a distance of about one mile.

#### **Installation Mission**

The mission of KASS is to train, equip, and sustain Army forces in the Pacific Theater.

#### **Lead Organization**

**IMCOM** 

#### **Lead Executing Agencies for Installation**

**US Army Environmental Command** 

#### **Regulator Participation**

State State of Hawaii, Department of Health

#### **National Priorities List (NPL) Status**

KIPAPA AMMO STORAGE SITE is not on the NPL

## Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status

The community has expressed no sufficient, sustained interest in a RAB.

#### **Installation Program Summaries**

#### **MMRP**

Primary Contaminants of Concern: Chemical weapon munitions (CWM)/Chemical agent

Affected Media of Concern: Soil

## 5-Year / Periodic Review Summary

No 5-Year / Periodic Reviews have been scheduled

## **Cleanup Program Summary**

#### **Installation Historic Activity**

There were no historical Military Munitions Response Program (MMRP) activities at KASS.

#### Installation Program Cleanup Progress

**MMRP** 

**Prior Year Progress:** The fieldwork for the remedial investigation (RI)/feasibility study (FS) was conducted at the site.

**Future Plan of Action:** The RI/FS report will be generated by the contractor.

## **KIPAPA AMMO STORAGE SITE**

Army Defense Environmental Restoration Program Military Munitions Response Program

## **MMRP Summary**

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 1/0

Installation Site Types with Future and/or Underway Phases

1 Unexploded Munitions/Ordnance

(KASS-001-R-01)

**Most Widespread Contaminants of Concern** 

Chemical weapon munitions (CWM)/Chemical agent

**Media of Concern** 

Soil

Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID Site Name Action Remedy

FΥ

N/A

**Duration of MMRP** 

Date of MMRP Inception 201203

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201803/201803

Date of MMRP completion including Long Term Management (LTM): 201803

## **MMRP Contamination Assessment**

#### **Contamination Assessment Overview**

Historic reports document many instances of leaking bombs. The extent of the leaking is not usually described and there is little mention of soil; however, some photos clearly show leaking agent on the ground in some tunnels. It is not possible to tell which tunnels these are from the information garnered so far. The records were originally secret or confidential, but have since been declassified. The date of declassification is not known at this time.

#### **Cleanup Exit Strategy**

A contract to conduct an RI/FS at the site was awarded in fiscal year (FY) 2014, and the need for future Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) phases will be determined during the execution of the RI/FS.

		MMRP Previous Studies				
2013	Title	Author	Date			
2013	Records Review	CEHNC-OEC	MAY-2013			

## **KIPAPA AMMO STORAGE SITE**

Military Munitions Response Program
Site Descriptions

## Site ID: KASS-001-R-01 Site Name: Kipapa Ammo Storage Tunnels



Regulatory Driver: CERCLA

MRSPP Score: Evaluation pending

Contaminants of Concern: Chemical weapon munitions

(CWM)/Chemical agent

Media of Concern: Soil

Phases	Start	End
PA	201203	201212
SI	201301	201312
RI/FS	201312	201803

RIP Date: N/A RC Date: 201803

### SITE DESCRIPTION

The site is located within the Kipapa Stream Valley of Central Oahu and consists of two separate land areas, Lower Kipapa Gulch, located towards the southern portion of the stream valley and Upper Kipapa Gulch, located towards the northern portion of the stream valley. The two areas cover a total of approximately 400 acres, and are separated by a distance of approximately one mile. The site consists of 80 underground storage tunnels dug into the rock formation of both sides of Kipapa gulch (54 in Upper Kipapa and 26 in Lower Kipapa).

The tunnels were reportedly constructed during World War II for the purpose of storing incendiaries and high explosives. The tunnels were subsequently used to store insecticides and chemical agents, primarily mustard gas, but also phosgene and lewisite. The tunnel numbers are identified in historical records, but there are identified discrepancies with the current tunnel numbers. Possible reasons for the discrepancies are that the numbering changed or the tunnels referred to in the reports are actually located at another installation (i.e. Waikakalua or Waikele). Readily available documentation is missing these key details.

The historic reports documented many instances of leaking bombs. The extent of leaking is not usually described and there is little mention of soil; however, some photos clearly show leaking agent on the ground in some tunnels. It is not possible to tell which tunnels these are from the information garnered to this point. The records were originally secret or confidential, but have since been declassified. The date of declassification is not known at this time.

The tunnels in Lower Kipapa were put out of service and all munitions removed in the early-1960s. The last of the chemical munitions and gas identification kits were removed from the site in the early-1970s. The tunnels in Upper Kipapa were also put of service at that time. After removal of the chemicals and ammunition, a few of the tunnels were used by the Army for other purposes which included prisoner of war (POW) training.

The property is excess to the needs of the Army and US Army Garrison (USAG)-HI plans to transfer the property to a private land owner following the performance of all required site investigations and potential remedial actions. Due to the former use of the property, it is critical to ensure that transfer does not present a risk.

An RI/FS was funded in FY14 to determine the nature and extent of contamination at the site. The RI fieldwork is currently underway. The RI/FS will determine the need for future phases of work.

#### **CLEANUP/EXIT STRATEGY**

An RI/FS began in FY14. The need for future phases will be determined during the RI/FS process.

## Site Closeout (No Further Action) Summary

**NFA Date** Site ID Site Name **Documentation** 

There are no NFA sites

## **MMRP Schedule**

Date of MMRP Inception 201203

**Past Phase Completion Milestones** 

2013

PA (KASS-001-R-01 - Kipapa Ammo Storage Tunnels)

2014

SI (KASS-001-R-01 - Kipapa Ammo Storage Tunnels)

**Projected Phase Completion Milestones** 

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

To Be Determined

Final RA(C) Completion Date:

Schedule for Next Five-Year Review: N/A

Estimated Completion Date of MMRP at Installation (including LTM phase): 201803

## **KIPAPA AMMO STORAGE SITE MMRP Schedule**

					= phase underway			
SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
KASS-001-R-01	Kipapa Ammo Storage Tunnels	RI/FS						

## **Community Involvement**

Technical Review Committee (TRC): None

Community Involvement Plan (Date Published): 201402

Restoration Advisory Board (RAB): No

**Reason Not Established:** The community has expressed no sufficient, sustained interest in a RAB.

Community Interest Solicited on: 201508

**Efforts Taken to Determine Interest** 

Solicitation sent out in the local newspaper from August 27 to September 26, 2015.

Results

No community response to solicitation.

Follow-up Procedures

The installation will solicit again in FY17.

#### **Additional Community Involvement Information**

None

#### Administrative Record is located at

Directorate of Public Works, Environmental Division 948 Santos Dumont Ave, Bldg. 105 Schofield Barracks, HI 96857 (808) 656-3092

#### Information Repository is located at

Wahiawa Public Library 820 California Avenue Wahiawa, HI 96786 (808) 622-6345

Mililani Public Library 95-450 Makaimoimo Street Mililani, HI 96789 (808) 627-7470

Current Technical Assistance for Public Participation (TAPP):N/A

TAPP Title: N/A

Potential TAPP: N/A